



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,539	02/21/2007	Marko Hannikainen	879A.0066.U1(US)	9841
29683 7590 06/30/2009 HARRINGTON & SMITH, PC 4 RESEARCH DRIVE, Suite 202 SHELTON, CT 06484-6212			EXAMINER DENNISON, JERRY B	
			ART UNIT 2443	PAPER NUMBER
			MAIL DATE 06/30/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/577,539	<b>Applicant(s)</b> HANNIKAINEN ET AL.	
	<b>Examiner</b> J Bret Dennison	<b>Art Unit</b> 2443	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 27-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/2/2009</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **RESPONSE TO AMENDMENT**

1. This Action is in response to the Amendment for Application Number 10/577,539 received on 4/02/2009.
2. Claims 1-26 have been cancelled, and claims 27-49 are newly presented for examination.
3. The prosecution for this case has been transferred to another Examiner. All corresponding communications should be directed to Examiner's contact information, provided below.

#### ***Claim Objections***

4. Claim(s) 30 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 30 recites a limitation already recited in its independent claim.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

Art Unit: 2443

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 27-33, 35-38, 40-41, and 43-45, 49 are rejected under 35 U.S.C. 102(e) as being anticipated by Tafazolli et al. (US 2003/0174731).

5. Regarding claims 27 and 30, Tafazolli disclosed an apparatus, comprising:  
a processor configured with a memory that stores program instructions (Tafazolli, [0127], Tafazolli disclosed a server), where execution of the program instructions provides a configurable protocol engine to configure and construct a communication protocol (Tafazolli, [0129], Tafazolli disclosed a protocol re-configuration platform to implement reconfigurable protocol stacks), said processor further configured to receive service primitives and configuration information (Tafazolli, [0127] Tafazolli disclosed the client providing a request for a modified service, including QOS parameters), and to manage configurable protocol engine configuration on the basis of the configuration information, said processor further configured to control and schedule at least part of internal processing in the configurable protocol engine on the basis of the configurable protocol engine configuration (Tafazolli, [0127], Tafazolli disclosed the server processing this request according to this provided information), said processor further configured to interface with at least one of an upper protocol layer and a lower protocol layer on the basis of the configurable protocol engine configuration and to execute functions for processing data in accordance with the configurable protocol engine configuration (Tafazolli, Fig. 7, [0060]-[0064] Tafazolli disclosed using layers from Physical layer all the way through to the Application layer), where the configurable

Art Unit: 2443

protocol engine configuration is constructed on the basis of at least one of service requirements, a required quality of service, hardware resources and network resources (Tafazolli, [0127] Tafazolli disclosed the server processing the client's request for a modified service using QOS parameters, as well as availability of local resources and resources already assigned to the client).

Claim 38 recites a method with limitations that are substantially similar to the limitations of claim 1. Claim 41 recites a memory that stores instructions to perform limitations that are substantially similar to the limitations of claim 1. Claims 43-44 include an electronic device with limitations that are substantially similar to claim 1. As shown in the above rejection of claim 1, Tafazolli clearly disclosed a server performing the limitations/steps as claimed. Therefore claims 38, 41, and 43-44 are rejected under the same rationale

6. Regarding claims 28, 40, 45 Tafazolli disclosed the limitations as described in claim 27, 38, 43, including where a number of the functions is selected on the basis of the configurable protocol engine configuration from a plurality of functions, said plurality of functions comprising an equal or larger number of functions than the selected number of functions (Tafazolli, [0035])

7. Regarding claim 29 Tafazolli disclosed the limitations as described in claim 27, including where the configuration information is received and processed during start-up of the configurable protocol engine or at run-time (Tafazolli, [0035]).

8. Regarding claim 31 Tafazolli disclosed the limitations as described in claim 27, including where at least one of said functions is received from an external entity (Tafazolli, [0035], Tafazolli disclosed that the framework is also capable of supporting composable protocols, which means they can be provided to the system for use).

9. Regarding claim 32 Tafazolli disclosed the limitations as described in claim 27, including where said processor is further configured to select a function on the basis of at least one of a service level provided by the function and at least one cost factor related to the function (Tafazolli, [0094]).

10. Regarding claim 33 Tafazolli disclosed the limitations as described in claim 27, including wherein said processor further configured to schedule said received service primitives (Tafazolli, [0094], [0127], Tafazolli disclosed QOS scheduling).

11. Regarding claim 35 Tafazolli disclosed the limitations as described in claim 27, including wherein the received configuration information explicitly defines the configurable protocol engine configuration (Tafazolli, [0127]).

12. Regarding claim 36 Tafazolli disclosed the limitations as described in claim 27, including wherein the received configuration information is a source for constructing the configurable protocol engine configuration (Tafazolli, [0127]).

13. Regarding claim 37 Tafazolli disclosed the limitations as described in claim 27, including wherein said configurable protocol engine is implemented in cooperation with hardware other than said processor (Tafazolli, [0127]).

14. Regarding claim 49 Tafazolli disclosed the limitations as described in claim 43, including wherein the device is embodied in a wireless communication device or in a computer (Tafazolli, [0127]).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim(s) 34, 39, 42, 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tafazolli in view of Pavan et al. (US 6,801,943).

16. Regarding claims 34, 39, 42, 43, Tafazolli disclosed the limitations as described in claims 27, 38, 41. Tafazolli did not explicitly state wherein said processor is further configured to perform scheduling by maintaining a plurality of queues for the service

Art Unit: 2443

primitives, where the queues are serviced on the basis of queue priority and where the service primitives are placed into the queues on the basis of priority.

In an analogous art, Pavan teaches a priority based scheduling method using a network scheduler and input/output control primitives to control servicing of queues of packets with each queue representing the priority of the packets (see Pavan, column 5 lines 23-50).

One of ordinary skill would have been motivated to combine the teachings of Tafazolli and Pavan since both provide teaching of servicing

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined the teachings of Pavan with Tafazolli to include priority based scheduling as taught by Pavan in order to ensure that higher priority primitives are allocated before lower priority primitives, thereby managing QoS requirements with respect to local resources as taught by Tafazolli in accordance with priority.

17. Regarding claim 47, Tafazolli and Pavan disclosed the limitations as described in claim 46, including wherein said processor further configured to utilize separate queues for each type of primitive (Pavan, col. 5, lines 50-65).

### ***Allowable Subject Matter***

18. Claim 48 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.



The prior art did not disclose wherein said processor further configured to place a primitive retrieved from a queue back into the queue if a function required by the primitive is already in use, in accordance with the limitations of base claim.

### **Response to Amendment**

Applicant's arguments are deemed moot in view of the following new grounds of rejection, necessitated by Applicant's substantial amendment (i.e., *by cancelling all claims and adding all new claims, which require further search and consideration*) to the claims which significantly affected the scope thereof.

It is the Examiner's position that Applicant has not yet submitted claims drawn to limitations, which define the operation and apparatus of Applicant's disclosed invention in manner, which distinguishes over the prior art.

Failure for Applicant to significantly narrow definition/scope of the claims and supply arguments commensurate in scope with the claims implies the Applicant intends broad interpretation be given to the claims. The Examiner has interpreted the claims with scope parallel to the Applicant in the response and reiterates the need for the Applicant to more clearly and distinctly define the claimed invention.

### **Conclusion**

**Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant.

Art Unit: 2443

Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2443

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Bret Dennison whose telephone number is (571) 272-3910. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on (571) 272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/J Bret Dennison/  
Primary Examiner, Art Unit 2443